



RESINIFY — INSTRUCTIONS FOR USE (IFU)

Product Name: CleanCast — High-Resolution, Clean-Burnout Castable Resin **Intended Use:** For Jewelry Investment Casting

1. Product Overview

CleanCast is a premium castable resin engineered for sharp detail replication, smooth surfaces, and **exceptionally clean burnout**. Developed from the performance profile of WIC-100, CleanCast delivers stable printing, consistent surface detail, and low ash residue suitable for professional gold, silver, and brass casting. CleanCast is optimized for filigree, micro-pavé, custom jewelry, and production casting environments where surface quality and reliability are essential.

2. Intended Use

CleanCast is designed for creating patterns for investment casting of:

- Rings, pendants, earrings, and micro-detail pieces
- Stone-setting designs including pavé
- Thin-walled jewelry components
- Production casting with gypsum-bonded investment

3. Storage & Handling

- Store between **18–28°C (65–82°F)**.
- Shake gently before each use—resin remains stable but benefits from mixing.
- Keep bottle sealed when not printing.
- Filter resin through a **190–220 µm** filter before returning to bottle.

4. Printing Instructions

Recommended baseline settings (50 µm layers):



Setting	Recommendation
Layer Height	50 µm (25 µm for ultra-high detail)
Normal Exposure	2.6–3.4 sec
Bottom Exposure	30–45 sec
Bottom Layers	4–6
Lift Speed	Slow–Medium
Light-Off Delay	Enabled for stability

Supports & Orientation:

- Angle parts between **20–40°** to preserve details.
- Use medium-density supports for rings; high-density for stone-set pieces.
- For pavé patterns, use smaller contact diameters (0.25–0.35 mm).

Surface Quality Tips:

- Reduce pixelated edges by increasing anti-aliasing.
- For flat surfaces, orient slightly to avoid build-step marks.

5. Cleaning Instructions**Two-Stage IPA Wash:**

1. **First Wash (20–40 sec):** Swirl gently—avoid forceful agitation.
2. **Second Wash (15–20 sec):** Preferably in fresh IPA or resin cleaner.

Drying:

- Allow parts to air-dry for **10–15 minutes**.
- Blow gently with compressed air to clear recesses.



Important Notes:

- Do **not** soak CleanCast in IPA — may cause surface softening.
- Ensure parts are fully dry before curing or investing.

6. Post-Curing Instructions

Low-Temperature Cure (Recommended):

- UV cure for **5–10 minutes** maximum.
- Keep part temperature **under 40°C (104°F)**.
- Over-curing may increase brittleness and hinder clean burnout. *Note:* CleanCast is formulated to burn out cleanly with **minimal polymer crosslinking**, so light curing is ideal.

7. Investing Instructions

Compatible Investments:

- R&R Plasticast, R&R Ultra-Vest, Gold Star investments
- Any high-quality gypsum-bonded jewelry investment

Investment Mixing Tips:

- Use vacuum mixing for **90–120 seconds**.
- Pour slowly along the flask wall to minimize bubbles.
- Light vibration only — excessive vibration may damage details.

Bench Set Time:

- Allow flask to set for **2–3 hours** before burnout.

8. Burnout Schedule

Standard Burnout Cycle (Gypsum-Bonded Investment):



Step	Temperature	Time
Ramp 1	Room Temp → 300°C (570°F)	2 hours
Hold	300°C	1 hour
Ramp 2	300°C → 730°C (1350°F)	2 hours
Hold	730°C	2 hours
Casting	500–600°C flask (depending on alloy)	—

Notes:

- For thick pieces: extend the 300°C hold to **2 hours**.
- For platinum: final burnout may go to **850°C** if the investment supports it.
- Avoid exceeding 900°C — may cause investment cracking.

9. Casting Recommendations

CleanCast is ideal for: Gold (10K–24K), Silver, Brass / Bronze.

If casting silver: Silver requires complete burnout; ensure full 730°C soak to avoid ash inclusions.

Surface Finish Optimization:

- Ensure models are fully dry before investing.
- Keep curing light; avoid excessive hardness.
- For very smooth surfaces: lightly steam the resin pattern before investing.

10. Post-Casting Cleaning

- **Quench timing depends on alloy:** Silver/brass: quench immediately after color change. Gold: short delay before quenching.
- Ultrasonic cleaning helps remove investment residues.
- Finish with polishing, tumbling, or blasting depending on alloy hardness.



11. Safety & Disposal

- Wear gloves and eye protection.
- Avoid skin contact with uncured resin.
- Cure waste resin before disposal.
- Dispose of contaminated IPA according to local regulations.
- Store away from sunlight and high heat.